

Application Serial No. 10/524,695
Reply to Office Action of September 16, 2008

NOV 17 2008
PATENT
Docket: CU-4085

Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1-5. (cancelled)

6. (withdrawn) A means of compressing pipe couplings comprising two concentric press surfaces designed to be capable of supporting an axial pressure sufficient to preload a seal, is designed to compress the end portions of the pipes, further comprising two end sections connected to two or more rods, each rod being equipped with a hydraulic cylinder, the preload on the seal principally being retained by a corresponding threaded nut and collar after removal of the preloading tool.

7. (withdrawn) A means in accordance with Claim 6, wherein the preloading tool comprises a nut runner.

8. (withdrawn) A means in accordance with Claim 7, wherein the nut runner is equipped with a cogwheel allocated to the rotation of a threaded collar with a toothed periphery of a rear portion of the collar.

9. (withdrawn) A means in accordance with Claim 7, wherein the nut runner is equipped with a cogwheel allocated to the rotation of a nut with a toothed periphery of a rear portion of the nut.

10. (withdrawn) A pipe connector comprising:

a preloading tool;

first and second pipes each having a pre-stressing press surface capable of taking an axial pressure from the preloading tool; a first and a second flange disposed at an end of each pipe with means for accepting a seal;

one pipe end having a nut with, in a rear portion of the nut, a surface arranged to bear on the first flange and the nut being arranged also for accepting axial pressure from the preloading tool, and the other pipe end having a collar with a rear portion arranged for accepting axial pressure and an opposite end surface arranged

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to bear on the second compressingly towards the pipe ends, the collar being in threadable relationship with the nut, at least one of the nut and the collar being rotatable on the pipe.

11. (withdrawn) A pipe connector in accordance with Claim 10, wherein the nut has a flange an axial pressure from the preloading tool, which pressure is distributed evenly or point-by-point about the periphery of the nut and directed towards the pipe flange.

12. (withdrawn) A pipe connector in accordance with Claim 10, wherein a rear portion of said collar has a toothed periphery.

13. (withdrawn) A pipe connector in accordance with Claim 10, wherein a rear portion of said nut has a toothed periphery.

14. (withdrawn) A method of connecting pipes, the pipes having at least at one end thereof a prestressing press surface and at ends thereof a sealing flange with means for accepting a seal, one pipe end having a nut with a surface arranged to bear on a flange and arranged also for accepting axial pressure from a preloading tool and the other pipe end having a collar being in threadable relationship with the nut, the nut or the collar or both being rotatable on the pipe, the method comprising:

inserting a seal between the pipe ends;

drawing the pipe ends together; fitting the preloading tool around the drawn together pipe ends;

operating the preloading tool so as to draw the pipe ends into sealing relationship and apply axial prestressing pressure to the nut or the collar so as to compress the seal and to screw the collar and the nut together; and

releasing the prestressing pressure and withdrawing the preloading tool.

15. (withdrawn) The pipe connector as claimed in claim 12, wherein the collar is rotatable on the pipe and the preloading tool acts on said toothed periphery to screw said collar and said nut together.

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16. (withdrawn) The pipe connector as claimed in claim 15, wherein the nut has a nut flange at the mouth of the nut upon which the preloading tool is arranged to bear.
17. (withdrawn) The pipe connector claimed in 10 wherein the preloading tool has first and second end sections each having two parts arranged for fitting around drawn together pipe ends.
18. (withdrawn) The pipe connector as claimed in claim 17 wherein the preloading tool has hydraulic means for drawing the end sections together.
19. (withdrawn) The pipe connector as claimed in claim 12 wherein the preloading tool has a nut runner for driving the toothed periphery.
20. (withdrawn) A method as claimed in claim 10 wherein the preloading tool is arranged for remote operation.
21. (currently amended) A means of connecting pipe connector for connecting at least two pipes, comprising a seal, flanges a first and a second flange, a threaded portion, [[and]] a nut, and a concentric press surface,
- wherein an end portion of each pipe is equipped with [[all] the concentric press surface located immediately proximal to the periphery of the pipe and designed to be capable of taking an axial pressure from a preloading tool; [[and]]
- wherein the nut comprises a rear end portion arranged with an internal load bearing surface corresponding to the first flange, an opposing end portion arranged with an external flange of the nut designed to be able to take an axial pressure from the preloading tool, and a mid portion therebetween comprising an internal threaded portion; and
- wherein the second flange comprises the concentric press surface and a rotatable threaded collar having a first end portion and a second end portion wherein

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the first end portion has an external toothed periphery and the second end portion is threaded and configured to engage the internal threaded portion of the nut of the first flange.

22. (currently amended) The ~~means~~ pipe connector in accordance with Claim 21, wherein ~~the a first end portion of a threaded collar~~ external toothed periphery of the rotatable threaded collar is designed to be able to take an axial pressure from the preloading tool, which pressure is distributed evenly or point-by-point about the periphery of the collar and directed towards the pipe flange.

23. (cancelled) ~~The means in accordance with Claim 22, wherein the first end portion of said collar has a toothed periphery.~~

24. (currently amended) The pipe connector ~~means~~ in accordance with Claim ~~[[22]]~~ 21, wherein ~~a first~~ the external flange of the opposing end portion of said nut has a toothed periphery.